Exploring the Extreme			
2009 Mathematics			
Academic Standards			
Nebraska Mathematics			
Grade 4			
Activity/Lesson	**State**	**Standards**	
Changing the Center of Gravity Using Moment Arms	NE	MA.4.MA 4.1.2.a	Use drawings, words, and symbols to explain the meaning of division [(e.g., as repeated subtraction: Sarah has 24 candies. She put them into bags of 6 candies each. How many bags did Sarah use?) (e.g., as equal sharing: Paul has 24 candies. He wants to share them equally among his 6 friends. How many candies will each friend receive?)]
Changing the Center of Gravity Using Moment Arms	NE	MA.4.MA 4.4.2.a	Make predictions based on data to answer questions from tables and bar graphs
Exploring the Extreme			
2009 Mathematics			
Academic Standards			
Nebraska Mathematics			
Grade 6			
Activity/Lesson	**State**	**Standards**	
Vectoring	NE	MA.6.MA 6.4.2.a	Make predictions based on data and create questions to further investigate the quality of the predictions
Center of Gravity, Pitch, Yaw	NE	MA.6.MA 6.1.3.b	Select and apply the appropriate method of computation when problem solving (e.g., models, mental computation, paper-pencil, technology, divisibility rules)
Center of Gravity, Pitch, Yaw	NE	MA.6.MA 6.1.4.a	Use appropriate estimation methods to check the reasonableness of solutions for problems involving positive rational numbers
Exploring the Extreme			
2009 Mathematics			
Academic Standards			
Nebraska Mathematics			
Grade 7			
Activity/Lesson	**State**	**Standards**	
Vectoring	NE	MA.7.MA 7.4.1.e	Formulate a question about a characteristic within one population that can be answered by simulation or a survey

Center of Gravity, Pitch, Yaw	NE	MA.7.MA 7.1.3.b	Select, apply, and explain the method of computation when problem solving using integers and positive rational numbers (e.g., models, mental computation, paper-pencil, technology, divisibility rules)
Center of Gravity, Pitch, Yaw	NE	MA.7.MA 7.1.3.c	Solve problems involving percent of numbers (e.g., percent of, % increase, % decrease)
Fuel Efficiency	NE	MA.7.MA 7.1.3.b	Select, apply, and explain the method of computation when problem solving using integers and positive rational numbers (e.g., models, mental computation, paper-pencil, technology, divisibility rules)
Fuel Efficiency	NE	MA.7.MA 7.3.1.a	Describe and create algebraic expressions from words, tables, and graphs
Exploring the Extreme			
2009 Mathematics			
Academic Standards			
Nebraska Mathematics			
Grade 8			
Activity/Lesson	**State**	**Standards**	
Jet Propulsion	NE	MA.8.MA 8.4.2.a	Evaluate predictions to formulate new questions and plan new studies
Vectoring	NE	MA.8.MA 8.4.2.a	Evaluate predictions to formulate new questions and plan new studies
Center of Gravity, Pitch, Yaw	NE	MA.8.MA 8.1.3.d	Select, apply, and explain the method of computation when problem solving using rational numbers (e.g., models, mental computation, paper-pencil, technology, divisibility rules)
Fuel Efficiency	NE	MA.8.MA 8.1.3.d	Select, apply, and explain the method of computation when problem solving using rational numbers (e.g., models, mental computation, paper-pencil, technology, divisibility rules)
Fuel Efficiency	NE	MA.8.MA 8.3.1.a	Represent and analyze a variety of patterns with tables, graphs, words, and algebraic equations